

FILEID**LIB

N 7

MM	MM	DDDDDDDD	LL
MM	MM	DDDDDDDD	LL
MMMM	MMMM	DD	DD
MMMM	MMMM	DD	DD
MM	MM	DD	DD
MM	MM	DD	DD
MM	MM	DD	DD
MM	MM	DD	DD
MM	MM	DD	DD
MM	MM	DD	DD
MM	MM	DD	DD
MM	MM	DD	DD
MM	MM	DD	DD
MM	MM	DD	DD
MM	MM	DDDDDDDD	LLLLLLLL
MM	MM	DDDDDDDD	LLLLLLLL

LIB.

Version 'V04-000'

* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
* DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
* ALL RIGHTS RESERVED.
*
* THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
* ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE
* INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER
* COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY
* OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
* TRANSFERRED.
*
* THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
* AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
* CORPORATION.
*
* DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.

MODIFIED BY:

V03-002	MCN0145	Maria del C. Nasr	08-Feb-1984
		Add DATA bit to indicate /DATA qualifier was specified.	
V03-001	JWT0056	Jim Teague	20-Sep-1982
		Add structures for implementation of DCX data reduction and expansion.	
V02-006	RPG0046	Bob Grosso	25-Aug-1981
	Turn on Update History		
V02-005	RPG0045	Bob Grosso	7-Aug-1981
	Support /BEFORE and /SINCE		
V02-004	RPG0044	Bob Grosso	30-Jul-1981
	Add KEEP flag.		
V02-003	RPG0041	Bob Grosso	8-May-1981
	Add <u>lhe\$w_modcnt</u>		
V02-002	RPG0033	Bob Grosso	20-Apr-1981
	Add <u>lib\$s_history</u> , <u>lib\$s_recordlruh</u> , <u>lib\$e_deflruhrec</u> , and <u>lib\$e_cre_opt</u> . Add structure LHE.		
V02-001	BLS0029	Benn Schreiber	23-Dec-1980
	Add shareable image symbol table library		
\$STRUCT LIB			

C <LIB,\$\$-
CLIBIT :Spare bit--used by CLI
OBJECT :Object library
MACRO :Macro library
HELP :Help text library
TEXT :TEXT library
SHRSTB :Shareable image symbol table library
COMPRESS :Compress function
CREATE :Create
DELETE :Delete
EXTRACT :Extract
INSERT :Insert
LIST :List
REMOVE :Remove
REPLACE :Replace
OUTPUT :Output
NAMES :Names
FULL :Full listing
GLOBALS :Globals
SELECTIVE :Selective search
SQUEEZE :Squeeze macro defs.
LIBOPEN :Library file is open
OUTOPEN :Output file is open
LOG :Log operations on terminal
OLDLIB :Library is old (VMS R1) format
CONVERT :Issue cnvrting message in compress_lib
ADDRESS :List module RFA also
ONLY :List only selected modules
MODULE :Cross reference of object library
CROSS :List the history
HISTORY :Opened library maintains a history
RECORDLUH :Keep user info and history across compress
KEEP :List entity predating
BEFORE :List entity postdating
SINCE :Reduce library with DCX
DCX :Data qualifier found
>
<M
CLIBIT :Spare bit--used by CLI
OBJECT :Object library
MACRO :Macro library
HELP :Help text library
TEXT :TEXT library
SHRSTB :Shareable image symbol table library
COMPRESS :Compress function
CREATE :Create
DELETE :Delete
EXTRACT :Extract
INSERT :Insert
LIST :List
REMOVE :Remove
REPLACE :Replace
OUTPUT :Output
NAMES :Names
FULL :Full listing

D 8

GLOBALS ;Globals
SELECTIVE ;Selective search
SQUEEZE ;Squeeze macro defs.
LIBOPEN ;Library is open
OUTOPEN ;Output file is open
LOG ;Log operations on terminal
OLDLIB ;Old format library
CONVERT ;Issue cnvrting message in compress_lib
ADDRESS ;List module RFA also
ONLY ;List only selected modules
MODULE
CROSS ;Cross reference of object library
HISTORY ;List the history
RECORDLUH ;Opened library maintains a history
KEEP ;Keep user info and history across compress
BEFORE ;List entity predating
SINCE ;List entity postdating
DCX ;Reduce library with DCX
DATA ;Data qualifier found
>
C <LIB,\$\$;Cross reference by symbol
CRFBYSYM ;Cross reference by value
CRFBYVAL ;Cross reference by module
>
V <M CRFBYSYM
CRFBYVAL
CRFBYMOD
>
C <
DEFBLKS,100 ;Number of blocks to allocate by default
DEFGBLS,512 ;Number of global symbols to allocate by default
DEFMODS,128 ;Number of modules to allocate by default
DEFLUHRÉC,20 ;Default maximum number of LUH records to save
DEFVERTYP,3 ;Default library version type to create
LISRECLNG,132 ;Length of listing file record
SHORTSYM,15 ;Length of symbols in Help libraries
SUBSYS,<134*65536> ;LIBRARIAN subsystem number (134)
OPT_BLKS,0 ;BLOCKS= option index number
OPT_GBLs,1 ;GLOBALS= option index number
OPT_MODS,2 ;MODULES= option index number
OPT_KSZ,3 ;KEYSIZE= option index number
OPT_LUHS,4 ;HISTORY= option index number
OPT_VER,5 ;VERSION= option index number
OPT_KEEP,6 ;KEEP option index number
OPT_DCX,7 ;REDUCE option index number
>
V <M
OPT_BLKS ;BLOCKS= option index number
OPT_GBLs ;GLOBALS= option index number
OPT_MODS ;MODULES= option index number
OPT_KSZ ;KEYSIZE= option index number
OPT_LUHS ;HISTORY= option index number
OPT_VER ;VERSION= option index number
OPT_KEEP ;KEEP option index number

```
OPT_DCX          ;REDUCE option index number
>

E

$STRUCT FDB
F      NXTFDB,L      ;Link to next FDB or 0 if end of list
F      FILFLGS,B      ;Flags for this file
V      <M
      SETSEL          ;Set selective search for this file
>
F      ,B
F      IFI,W          ;IFI of file
F      DEFEXT,L       ;String descriptor for default extension
F      ,L,1
F      NAMDESC,L      ;String descriptor for file
F      ,L,1
F      MODNAM,L       ;String descriptor for /MODULE name
F      ,L,1
F      ,L,8
F      NAM,T,0          ;Spares
F      SIZE            ;NAM block and resultant string follow
F      FILE            ;*NOTE* must be longword aligned
E      NAM,T,0          ;Start of NAM block
E      SIZE            ;Size of local part of FDB

$STRUCT LNB
F      FLINK,L        ;Link word forward
F      BLINK,L        ;Link backwards
F      FLAGS,B        ;Flags
V      <
      REPLACE          ;Replace rather than insert symbol
>
F      NAMLNG,B        ;Length of name
F      NAME,T,0        ;Start of name
F      FILE            ;Length of fixed part of library name block
E

$STRUCT MNB
F      NEXT,L          ;Link to next module name block
F      SYMBOLS,L       ;Link to symbol list
F      NAMLNG,B        ;Length of module name
F      NAME,T,0        ;Start of name
F      FILE            ;Length of fixed part of module name block
E

$STRUCT SNB
F      NEXT,L          ;Link to next symbol name block
F      VALUE,L          ;Value of symbol
F      FLAGS,W          ;Symbol flags
F      NAMLNG,B        ;Length of symbol name
F      NAME,T,0        ;Start of name
F      FILE            ;Length of fixed part of symbol name block
E
```

E

\$STRUCT LHE

F	TIME,L	;Time of modification
F	,L,1	
F	MODCNT,W	;count of module names
F	MODCODE,B	;code for the modification
C	<	
	DELETED,1	
	INSERTED,2	
	REPLACED,3	
F	>	
F	USRNAMLEN,B	;length of the username
F	USRNAM,T,12	;username
E	FIXEDSIZE	

0200 AH-BT13A-SE
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION
CONFIDENTIAL AND PROPRIETARY

TRANSFER
LIS

PUTCACHE
LIS

LIBRAR

LIBRARIAN
MAP

SUBS
LIS

PADLBR
LIS

LTB
MDL

COMPRESS
LIS

PREFIX
REQ

CROSS
LIS

DATABASE
LIS

FILEIO
LIS

EXTRACT
LIS

DELETE
LIS